wherein the first and second insulating protective films are made of solder resist whose young's modulus is in the range of 5 kgf/mm^2 to 70 kgf/mm^2, and

wherein the first insulating protective film is made of only one kind of solder resist and contains a filler that determines viscosity thereof in the range of 10 wt% to 40 wt%.

REMARKS

This is in response to the Office Action dated April 24, 2002. Claims 1-23 have been canceled. Thus, claims 24-27 are now pending. No changes to claims 24-27 have been made.

Claims 1-19 and 23 were rejected under 35 U.S.C. Section 112, first paragraph, and Section 132 for allegedly introducing "new matter." While applicant does not agree with or acquiesce as to these rejections, claims 1-23 have been canceled thereby rendering these rejections moot. The Section 112, second paragraph, rejection of claim 5 has also been rendered moot as the claim has been canceled. Moreover, the Section 103(a) rejection of claims 1, 2, 4, 6-11, 13, 15, 16-19 and 23 over admitted prior art (APA) in view of Miyamura and Tajima at pages 16-19 of the Office Action has also been rendered moot by the cancellation of claims 1-23.

Claims 24-27 stand rejected under 35 U.S.C. Section 103(a) as being allegedly unpatentable over admitted prior art (APA) in view of Miyamura as alleged on pages 5-15 of the Office Action. This Section 103(a) rejection is respectfully traversed for at least the following reasons.

Claim 24, for example, requires a "tape carrier package semiconductor device, which has a tape carrier and semiconductor elements that have been packaged on the tape carrier, characterized in that said tape carrier comprises: an insulating tape, a metal wiring pattern installed on one surface of the insulating tape, a through hole that is provided in a manner so as to penetrate the insulating tape so that the insulating tape is allowed to bend, a first insulating protective film for insulating and covering the metal wiring pattern and the through hole on a metal-wiring-pattern side of the tape, a second insulating protective film for insulating and covering the through hole on the side opposite to the metal-wiring-pattern side, wherein the first and second insulating protective films are made of solder resist whose young's modulus is in the range of 5 kgf/mm^2 to 70 kgf/mm^2, and wherein the solder resist of the first insulating protective film contains a filler that determines the viscosity thereof in the range of 10 wt% to 40 wt%." The cited art fails to disclose or suggest the subject matter of claim 24.

The arrangement of APA Fig. 7(b) uses solder resist 111 having a Young's modulus of 50 +/- 20 kgf/mm^2, and another type of solder resist 110 having a Young's modulus of 380 +/- 80 kgf/mm^2 on the metal wiring pattern side of substrate 102. Using only a resist 111 having a Young's modulus of 50 +/- 20 kgf/mm^2 would result in undesirable bleeding of the solder resist, and the addition solder resist 110 having a Young's modulus of 380 +/- 80 kgf/mm^2 is essential for preventing bleeding (e.g., see pg. 3 of the instant application). Omitting the solder resist 110 having a Young's modulus of 380 +/- 80 kgf/mm^2 from the arrangement of Fig. 7(b) would thus lead to undesirable bleeding. Therefore, one of ordinary skill in the art would not have omitted resist 110

from the APA Fig. 7(b), because one of ordinary skill in the art would not have wanted bleeding to occur.

In contrast with APA Fig. 7(b), the invention of claim 24 requires both: (a) the solder resist on the metal wiring pattern side of the substrate to have a Young's modulus in the range of 5 kgf/mm^2 to 70 kgf/mm^2; and (b) the solder resist of the first insulating protective film contains a filler that determines the viscosity thereof in the range of 10 wt% to 40 wt%. APA Fig. 7(b) does not disclose either (a) or (b). *Surprisingly*, the claimed combination of (a) and (b) enables the instant invention to prevent or reduce bleeding *without* having to provide a harder solder resist with a 380 +/- 80 kgf/mm^2 Young's modulus. See for example the instant specification at pages 28-29. Thus, because of the claimed combination of (a) and (b), the metal wiring side resist(s) can achieve practical resistance to wire breaks and can avoid/reduce bleeding without the need for a harder solder resist with a 380 +/- 80 kgf/mm^2 Young's modulus.

Miyamura merely discloses improving general characteristics of solder resist, and fails to disclose or suggest suitable amounts of filler for bleeding prevention. In contrast, the invention of claim 24 is based on the finding that when applied to a curved part of a wiring board having a slit, the solder resist under the foregoing conditions achieves good results in wire break testing and reduces development of bleeding (e.g., see page 35, line 18, through page 36, line 10, of the instant specification).

Accordingly, it would not have been obvious to have combined Miyamura and the APA as alleged in the Office Action.

Claims 25-27 define over the cited art in a similar manner.

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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